

CLAIM AMENDMENTS

1.-28. (Cancelled)

29. (New) An imager comprising:

an array of pixel sensors, each pixel sensor to provide an analog signal indicative of a pixel of an image having different primary color components;

for each pixel sensor, at least two storage locations located in the array and each storage location being designated for a different one of the primary color components;
and

for each pixel sensor, switches to, during a first integration interval associated with one of the primary color components, store the digital signal in one of the storage locations and, during a second integration interval associated with another one of the primary color components, store the digital signal in another one of the storage locations.

30. (New) The imager of claim 29, further comprising:

switches to multiplex signals from the storage locations onto an output terminal of the imager.

31. (New) The imager of claim 29, further comprising:

a sample and hold circuits located between the analog-to-digital converters and the array.

32. (New) The imager of claim 29, wherein said at least two storage locations comprise at least three storage locations for each pixel sensor.

33. (New) A method comprising:
providing a pixel sensor to provide an analog signal;
providing at least two digital storage locations associated with the pixel sensor and each digital storage location being designated for a different primary color component of an image;
during a first integration interval, converting the analog signal into a digital signal and storing the digital signal in one of the associated storage locations; and
during a second integration interval, storing the digital signal in another one of the storage locations.

34. (New) The method of claim 33, wherein
the digital signal indicates a first primary color component of the image during the first integration interval; and
the digital signal indicates another primary color component different from the first primary color component of the image during the second integration interval.

35. (New) The method of claim 33, further comprising:
forming a pixel sensor array that includes the pixel sensor.

36. (New) A camera comprising:
an array of pixel sensors, each pixel sensor to provide an analog signal indicative of a pixel of an image having different primary color components;
for each pixel sensor, at least two storage locations located in the array and each storage location being designated for a different one of the primary color components;
for each pixel sensor, switches to, during a first integration interval associated with one of the primary color components, store the digital signal in one of the storage locations and, during a second integration interval associated with another one of the primary color components, store the digital signal in another one of the storage locations;
a scaling unit to selectively scale data stored in said at least two storage locations.

37. (New) The camera of claim 36, further comprising:
switches to multiplex signals from the storage locations onto an output terminal of the imager.

38. (New) The camera of claim 36, further comprising:
a sample and hold circuits located between the analog-to-digital converters and the array.

39. (New) The camera of claim 36, wherein said at least two storage locations
comprise at least three storage locations for each pixel sensor.

40. (New) The camera of claim 36, further comprising:
a serial bus to communicate data stored in said at least two storage locations to a computer.